

## THE NEXT EVENT

The next event is June 20 at the Lockheed Martin Orion conference room. Nigel Packham will talk about *What Really Happened to STS-107*. Announcements will be sent soon so keep an eye out.

**Ben Edwards**

## GREETINGS FROM THE PRESIDENT

The first few months of 2013 have been busy and productive for the TGCC. If you haven't been able to attend a lot of chapter meetings or keep up with INCOSE activities as well as you'd like to, this news letter is intended to fill you in, in a succinct way we hope.

We held the first chapter meeting of the year on January 24<sup>th</sup>. This meeting was our annual kick-off event where we solicited member input to help set the direction for the year's focus and activities. We're doing our best to follow that direction and to provide what our members want.

By the way, since we're a now little way down the road, it's about time to get a refresh on your input. Please be on the lookout for a questionnaire from the TGCC using SurveyMonkey.com. (Make sure it doesn't get hung in your junk mail folder!) It is vital for us to know your background, your level of experience and interests if we're to develop meaningful and compelling program content.



**A packed house**

The February 21st chapter meeting at Baker-Hughes International on Rankin Road was a watershed event for the TGCC. It was the first time a non-aerospace company hosted a chapter meeting at a venue more central to the energy industry than the Johnson Space Center. By all accounts including my own first hand observations, it was an unqualified success.



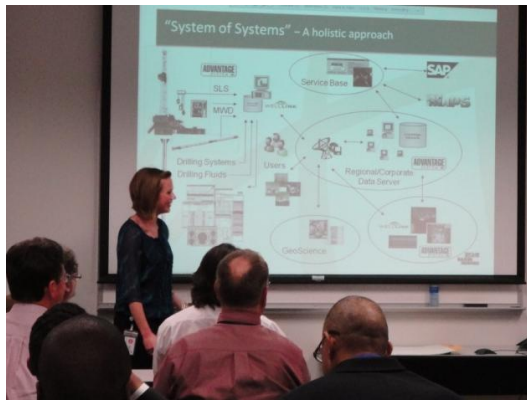
**Event hosts Rob Randall and Emily Crose take questions from the audience**

This event attracted over 50 attendees from aerospace, medical and energy industry segments. Attendees had an opportunity to tour the BHI facility and to see firsthand some amazing down-hole technology coming together. We got an idea of a few of the challenges they face in making this technology function reliably in some truly hostile environments. This was familiar territory for many of us coming from an aerospace



perspective and the value of Systems Engineering is unarguable.

Our Baker-Hughes hosts, Rob Randall and Emily Crose presented an overview of BHI's approach to Systems Engineering with a few humorous real world learning examples thrown in. This event was very much in line with INCOSE's objectives to promote the discipline of Systems Engineering outside of the Defense and Aerospace communities and it is clear that



**Emile Crose of Baker-Hughes explains their holistic approach to Systems Engineering**

Baker-Hughes is not only benefiting from Systems Engineering approaches and methodologies, but establishing themselves as leaders in the Systems Engineering community.

To Emily and Rob, from the TGCC Board of Directors, and the chapter membership as a whole, thank you for hosting this first class event.

The March 21<sup>st</sup> chapter meeting featured a compelling presentation by David Fitts of NASA Johnson Space Center on Human Systems Integration and the quality programs continued in the April 25<sup>th</sup> meeting with a presentation from Mr. David Meza, also of NASA JSC on

"Lean Enabler's for Managing Large Engineering Programs". Both of these outstanding programs were highly applicable and garnered high levels of interest from SE practitioners in the energy, medical and aerospace industry segments.

Most recently, the May 24 meeting was held in conjunction with the American Institute of Aeronautics and Astronautics' Aerospace Technology Symposium. The Texas Gulf Coast Chapter sponsored an entire Systems Engineering program track focusing on Model Based Systems Engineering. The program featured five highly qualified presenters including Mr. Lenny Delligatti on "Model-Based Systems Engineering with SysML: An Approach for Reducing Cost and Improving Quality", "How to Fail at Model-Based Systems Engineering" presented by Matthew Hause, "MBSE without a Process-Based Data Architecture is just a set of random characters" by Robert Crain, "NASA Integrated Model-centric Architecture Team" presented by Linda Bromley and finally, "What's Happening with the new JSC SysML User's Group" from Bill Othon.

Initial response by attendees was very positive but here again, the TGCC would like a little more insight into what you thought about the program. Yes, that means a *second* questionnaire will be appearing in your in-box soon. Please take a moment to let us know what you thought of the content and even if you didn't have an opportunity to attend, let us know what you'd like to see next year. Fill one out and we promise to stop filling up your in box. The TGCC is here to serve you, but we're not mind readers!



That's it. Please take an opportunity to drop by a chapter meeting if you haven't already done so. They are casual affairs with interesting technical content and an opportunity (not a requirement) to network with fellow practitioners along with some light refreshments. All of this is free with your INCOSE membership. How can you beat that? You'll be amazed at the difference a little participation can make.

**By Paul Nesrsta**  
2013 TGCC President

## GREETINGS FROM THE VICE PRESIDENT

INCOSE's purpose is to share, promote and advance the best of systems engineering from across the globe for the benefit of humanity and the planet. In order to better fulfill this Mission and provide our members and the community with the best possible experience, the Texas Gulf Coast Chapter of INCOSE requests your feedback by completing a short survey. We are sending this survey out via email and you can get to it via the following link as well. Your feedback and time is appreciated.

<https://www.surveymonkey.com/s/INCOSETGCC>

**By Sharm Baker**  
2013 TGCC Vice President

## EDUCATION AND OUTREACH

**By Lenny Delligatti**

I'm honored to serve as the Education & Outreach Director for our chapter for 2013. We

have planned and will be offering some exciting training opportunities this year to support our members' professional development needs. We are also building active partnerships with local companies and academic institutions to grow our network and add value back to their organizations.

The *OMG Certified Systems Modeling Professional (OCSMP)* certification is the Object Management Group certification in SysML and Model-Based Systems Engineering (MBSE). INCOSE partnered with the OMG in 2003 to draft the RFP that led to the creation and ultimate adoption of SysML as the de facto standard modeling language for the systems engineering domain. Proficiency in SysML and MBSE practices strongly complements knowledge of the systems lifecycle processes covered in the *INCOSE Systems Engineering Handbook*. The OCSMP certification pairs well with the SEP certifications. And the TGCC will offer a training program to support the members of our community who want to earn this certification this year.

Registration for the June class is now closed. We have 14 people currently on the roster. The class will tentatively start in the third week of June, and run for 13 weeks. Class will be held at Coffee Oasis on NASA Rd 1 but the specific day and time is still to be determined by the course participants. I hope to offer this class a second time starting in August and will send out another e-mail at the end of June to open the registration period for that class.

Community outreach is our other big focus this year. The BOD is looking for members to serve as *community ambassadors*, liaisons between



the TGCC and the companies and institutions in their respective sectors (e.g. Healthcare, Finance, Chemical, Oil & Gas, Aerospace, Academia, etc.). Our community ambassadors will establish contact with the systems engineering organizations in those companies and institutions, share information with them about TGCC initiatives and events, and cultivate partnerships with them to bring more systems engineers into INCOSE and provide networking and professional development opportunities to those companies and institutions. The community ambassadors will reciprocally convey the needs of these companies and institutions to the TGCC to ensure that we're properly serving the community in which we coexist.

Please contact me if you are interested in serving as a community ambassador. Your level of involvement would be entirely driven by you; any degree of symbiosis that we establish with the community is value added. Please contact me also if you are interested in serving on the Education & Outreach Committee to help drive the implementation of our upcoming training programs. Your active involvement makes this chapter work. And I look forward to working with you this year.

Sincerely,  
**Lenny**

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## **A FAMOUS AUTHOR (or soon to be)**

Lenny Delligatti has written a book entitled *SysML Distilled: A Brief Guide to the Systems Modeling Language*. It is offered through Amazon for pre-order and the publish date is December 11. Congratulations to Lenny!

*By Larry Spratlin*

## **FUTURE EVENTS**

*By Ben Edwards*

**June 20, 2013**

### Presentation Synopsis

Title: The *Columbia* Crew Survival Investigation Report – What happened to the STS-107 *Columbia* crew and what can be learned from it.

The subject report (NASA/SP-2008-565) was publicly released on December 30, 2008 and may be found at:

<http://www.nasa.gov/reports>

The report goes into great detail about what happened to the Space Shuttle *Columbia* as it returned from Space in February, 2003. The report contains 30 recommendations drawn from findings using multiple sources of evidence including telemetry, video analysis, ballistics, and debris analysis. These recommendations are intended to increase the likelihood of crew survivability for both current and future spacecraft designs.

The presentation will provide a background of the investigation; the timeline of the accident



derived from the evidence described above, and will discuss several of the key findings that may have application to future spacecraft designers.

### **Presenter**

Dr. Packham is the Associate Director, Technical, of NASA Johnson Space Center's Safety and Mission Assurance Directorate. He also serves as the Manager for the Flight Safety Office in the same organization, which has responsibility for implementation of the Governance Model (Technical Authority) for all Human Spaceflight Programs. He was the Project Manager for the effort that culminated in the release of the Columbia Crew Survival Investigation Report, the subject of today's presentation.

Prior to this appointment, he served as the Chief of the Environmental Factors Branch of the Space Life Sciences Directorate, whose office had responsibility for the oversight of environmental quality (water, air, microbiological, radiation and acoustics) for all for all Human Spaceflight Programs.

He started his career at NASA in the Engineering Directorate working on Space Shuttle, International Space Station and Advanced Life Support Systems. In this position he also served as the Commander of a four-person crew that spent 91 days inside a 6-meter diameter chamber to demonstrate the capabilities of advanced systems for air, water and waste recovery for long-duration missions.

## **July 18, 2013**

Tony Williams will host a panel discussion on "Integration – the Neglected Systems Engineering Discipline?" Tony is a past president of TGCC and recognized by INCOSE as an Expert Systems Engineering Professional. More info will follow soon.

*Ben*

## **THE TGCC BOARD OF DIRECTORS**

*By Larry Spratlin*

Keep in mind you can always contact a member of your local chapter's Board of Directors at any time. Your local BOD is currently staffed:

President:	Paul Nesrsta
Vice President:	Sharm Baker
Secretary:	Rafael Munoz
Programs:	Ben Edwards
Education/Outreach:	Lenny Delligatti
Communications:	Larry Spratlin

Check the local public TGCC website for contact information <http://www.incose.org/tgcc/>.

Incidentally, we are still looking for individuals to staff the membership and Treasurer positions. If you are interested, contact Paul or Sharm (or any board member you can grab).

*Larry*